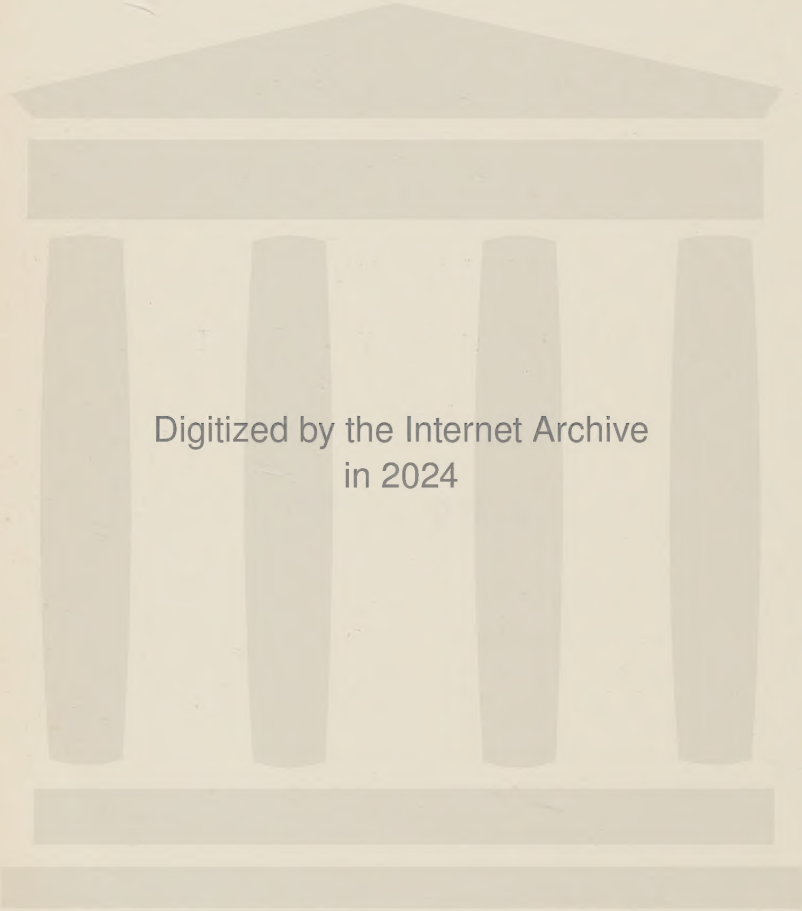


IL NUOVO CIMENTO

---

INDICI  
DEL VOLUME XVI - SERIE X  
1960

PRINTED IN ITALY



Digitized by the Internet Archive  
in 2024

# INDICE SISTEMATICO PER NUMERI SUCCESSIVI DEL PERIODICO

---

N. 1 - 1° APRILE 1960

|  |        |
|--|--------|
| R. R. DANIEL, N. KAMESWARA RAO, P. K. MALHOTRA and Y. TSUZUKI -<br>Some characteristics of inelastic proton-nucleon collisions produced by<br>protons of energy 6.2 GeV in nuclear emulsions . . . . . | pag. 1 |
| R. P. KERR - On the quasi-static approximation in general relativity . . . . .   | » 26   |
| G. TORALDO DI FRANCIA - On the theory of some Čerenkovian effects . . . . .  | » 61   |
| M. GOURDIN and A. MARTIN - Photoproduction of pions on pions . . . . .   | » 78   |
| J. S. LOMONT and H. E. MOSES - Uniqueness of the orbital angular mo-<br>mentum operators . . . . .   | » 96   |
| R. L. INGRAHAM - A free nucleon theory . . . . .   | » 104  |
| H. D. SHARMA - Influence of the inner electrode on the threshold potential<br>using Siemen's type ozonizers under low frequency silent electric discharge . . . . .                                    | » 128  |
| N. DALLAPORTA and L. K. PANDIT - Baryon mass-differences and sym-<br>metries of strong interactions . . . . .  | » 135  |
| N. CABIBBO, R. GATTO and C. ZEMACH - A theorem on the elimination of<br>contact muon-electron interactions . . . . .   | » 168  |
| S. K. BHATTACHERJEE and S. K. MITRA - $\beta$ - $\gamma$ directional correlation in $^{152}\text{Eu}$ . . . . .  | » 175  |

## *Lettere alla Redazione:*

|   |       |
|---|-------|
| E. ABATE - Considerazioni sui limiti di applicabilità del metodo degli atomi<br>nelle molecole . . . . .                      | » 190 |
| D. FLAMM - The electronic decay of $\Lambda^0$ derived indirectly by K-meson<br>couplings . . . . .                           | » 194 |
| F. T. ARECCHI, E. GATTI and E. ZAGLIO - A new method for timing scin-<br>tillation pulses . . . . .                           | » 198 |
| J. J. GIAMBIAGI - Analogy between Lorentz and Foldy-Wouthuysen trans-<br>formation . . . . .                                  | » 202 |
| B. DE TOLLIS - Anomalous moment of the $\mu$ -meson for different models<br>of breakdown of quantum electrodynamics . . . . . | » 203 |

|  |       |
|--|-------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 206 |
|--|-------|



## N. 2 - 16 APRILE 1960

|  |          |
|--|----------|
| F. J. M. FARLEY - Excited nucleon interpretation of high energy nuclear interactions . . . . .   | pag. 209 |
| K. J. LE COUTEUR - Integral representation of a double commutator . . .  | » 227    |
| F. GÜRSEY - On the symmetries of strong and weak interactions . . . .  | » 230    |
| G. DASCOLA, C. LAMBORIZIO, S. MORA and I. ORTALLI - Emission of hyper-fragments in capture stars of negative hyperons at rest . . . . .  | » 241    |
| L. M. FALICOV - The theory of photon packets and the Lennuier effect .   | » 247    |
| E. EBERLE, M. NAGASAKI and L. SERTORIO - Independent particle model and photonuclear giant resonance . . . . .   | » 260    |
| S. DEUTSCH - Influence de la chaleur sur la coloration des halos pléochroïques dans la biotite . . . . .   | » 269    |
| S. TYAGARAJA RAO - A technique for eliminating the variation of mass with velocity in relativistic problems . . . . .  | » 274    |
| B. N. SUBBA RAO - Gamma-ray transitions in $^{155}\text{Gd}$ . . . . .   | » 283    |
| F. BACHELET, P. BALATA, A. M. CONFORTO and G. MARINI - Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 - Part I: The cosmic ray events and their correlation with the geomagnetic events | » 292    |
| F. BACHELET, P. BALATA, A. M. CONFORTO and G. MARINI - Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 - Part II: The geomagnetic events . . . . .                                       | » 32     |
| S. HATSUKADE, R. E. MARSHAK, S. OKUBO and E. C. G. SUDARSHAN - Note on divergenceless currents and muon polarization in $K_{\mu 3}$ decays . . . .   | » 33     |
| J. D. WALECKA - The binding energy of $\Lambda$ -particles in nuclear matter . .   | » 24     |
| A. BISI, A. FASANA and L. ZAPPA - Circular polarization of external bremsstrahlung from beta emitters . . . . .  | » 350    |
| S. T. EPSTEIN - On the origin of super-selection rules . . . . .   | » 362    |

*Lettere alla Redazione:*

|   |       |
|---|-------|
| J. C. PATI and S. ONEDA - An attempt at universal four-fermion interaction  | » 365 |
| E. KAZES - On the high energy behavior in field theory. . . . .   | » 368 |
| YUNG SU TSAI - Radiative corrections to the e-e scattering . . . . .  | » 370 |
| P. G. BORDONI, M. NUOVO and L. VERDINI - Dislocation relaxation in zinc single crystals . . . . .   | » 373 |
| M. ADEMOLLO, M. BOCCIOLINI, G. DI CAPORACCIO and M. MANDÒ - On the $^{196}\text{Au}^m$ isomeric state . . . . .   | » 378 |
| D. I. BLOHINČEV - Fluctuations of space-time metric . . . . .   | » 382 |
| J. J. SAKURAI - Pion resonances . . . . .   | » 388 |
| E. AMALDI, A. BARBARO-GALTIERI, G. BARONI, C. CASTAGNOLI, M. FERRO-LUZZI, A. MANFREDINI, M. MUCHNIK, V. ROSSI and M. SEVERI - Production and decay of an $\Sigma^{\mp}$ . . . . . | » 392 |

|  |       |
|--|-------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 396 |
|--|-------|

## N. 3 - 1° MAGGIO 1960

|   |          |
|---|----------|
| S. NARANAN, R. RAGHAVAN, P. V. RAMANAMURTHY, B. V. SREEKANTAN and A. SUBRAMANIAN - Cloud chamber evidence for the presence of simultaneous high energy nuclear-active particles at mountain altitudes . . . | pag. 401 |
| T. GÉMESY, T. SÁNDOR and A. SOMOGYI - Cloud chamber study of extensive air showers . . .  | » 412    |
| G. BECK and H. M. NUSSENZVEIG - On the physical interpretation of complex poles of the $S$ -matrix - I . . .  | » 416    |
| P. CUZZOCREA, G. PAPPALARDO and R. RICAMO - Cross section for $^{31}\text{P}(n, p)^{31}\text{Si}$ reaction up to 5 MeV . . .  | » 450    |
| J. TERRELL - Relativistic observations and the clock problem . . .  | » 457    |
| M. A. POMERANTZ, V. R. POTNIS and S. P. AGARWAL - Cosmic ray investigations with an airborne neutron monitor . . .  | » 469    |
| D. EVANS, F. HASSAN, K. K. NAGPAUL and N. SHAFI - On the interaction of $(200 \div 300)$ MeV $K^+$ -mesons in emulsion . . .  | » 476    |
| A. KATZ, A. DE-SHALIT and I. TALMI - The superconducting state in the Bethe-Goldstone approximation . . .   | » 485    |
| J. ASHKIN, T. FAZZINI, G. FIDECARO, Y. GOLDSCHMIDT-CLERMONT, N. H. LIPMAN, A. W. MERRISON and H. PAUL - A new measurement of the mean life of the positive pion . . .                                       | » 490    |
| G. BOATO, G. CASANOVA and M. E. VALLAURI - Vapour pressure of isotopic liquids - II: Ne and A above boiling-point . . .   | » 505    |
| CH. GEGAUFF et J. P. LONCHAMP - Influence du développement sur la dimension transversale des traces d'ions lourds dans les émulsions ionographiques . . .   | » 520    |
| F. P. RICCI - Quantum effect on the radial distribution function of liquids . . .   | » 532    |
| J. D. BJORKEN and A. GOLDBERG - A test of approximation methods in potential scattering . . .   | » 539    |
| G. FELDMAN, P. T. MATTHEWS and A. SALAM - The inelastic scattering of elementary particles - II . . .   | » 549    |
| A. M. BRODSKI and D. IVANENKO - On the influence of weak interactions on electromagnetic properties of fermions . . .   | » 556    |
| J. BERNSTEIN, M. GELL-MANN and L. MICHEL - On the renormalization of the axial vector coupling constant in $\beta$ -decay . . .   | » 560    |

*Lettere alla Redazione:*

|  |       |
|--|-------|
| Z. JANKOVIĆ - Remarks on the paper by K. Stiegler: « On the mechanical foundation of the theory of special relativity » . . .                              | » 569 |
| R. SUZUKI and M. AKANO - Supercurrent and energy gap . . .   | » 570 |
| T. TANIUTI - The canonical theory of motion of charged particles in external electromagnetic fields . . .  | » 572 |
| F. HALBWACHS and J. P. VIGIER - Lie relations associated with relativistic rotators and bilocal theory . . .   | » 576 |
| K. STIEGLER - Antwort auf die Bemerkungen von Z. Janković zu meiner Abhandlung: « On the mechanical foundation of the theory of special relativity » . . . | » 579 |



|   |          |
|---|----------|
| D. IVANENKO and V. LULKA - On mesonic decays of the hypernucleus $^3\text{H}_\Lambda$ | pag. 582 |
| G. HÖHLER - On the energy dependence of the $\alpha_{33}$ -phase-shift . . . . .      | » 585    |
| S. T. EPSTEIN - On the anisotropy of inertia . . . . .                                | » 587    |

|  |       |
|--|-------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 589 |
|--|-------|

## N. 4 - 16 MAGGIO 1960

|  |          |
|--|----------|
| R. E. KELLY and A. RUSSEK - Diffraction of a plane electromagnetic wave by cylinders with anisotropic conductivity . . . . .                                   | pag. 593 |
| S. C. FREDEN, H. N. KORNBLUM and R. S. WHITE - Lifetimes, branching ratios, and asymmetries in $\Sigma$ -hyperon decays . . . . .                              | » 611    |
| B. JONGEJANS - On the grain density in Ilford G-5 emulsion of singly charged relativistic particles . . . . .  | » 625    |
| S. BISWAS, P. J. LAVAKARE, K. A. NEELAKANTAN and P. G. SHUKLA - The energy spectrum of nuclei with charge $Z \geq 6$ in the primary cosmic radiation . . . . . | » 644    |
| E. ARNOUS, W. HEITLER and Y. TAKAHASHI - On a convergent non-local field theory - I . . . . .  | » 671    |
| C. CASTAGNOLI, M. MUCHNIK, G. GHIGO and R. RINZIVILLO - Photostar production between 500 and 1100 MeV . . . . .  | » 683    |
| W. ZIMMERMANN - One-particle singularities of Green's functions in quantum field theory - II. . . . .  | » 690    |
| M. GELL-MANN and M. LÉVY - The axial vector current in beta decay . .  | » 705    |
| D. BRINI, E. FUSCHINI, N. T. GRIMELLINI and D. S. R. MURTY - Compton effect on the bound electrons. . . . .  | » 727    |
| M. L. GUPTA - The problem of the $\Sigma^-/\Sigma^+$ ratio in $K^-$ -p interaction in relation to the hypothesis of restricted symmetry . . . . .              | » 737    |
| G. K. BACKENSTOSS, H. FRAUENFELDER, B. D. HYAMS, L. J. KOESTER jr. and P. C. MARIN - An investigation of the stability of nucleons . . .                       | » 749    |

*Lettere alla Redazione:*

|  |       |
|--|-------|
| G. BIAŁKOWSKI and A. JUREWICZ - A note on a possible classification of strangeness-2 mesons. . . . .                                 | » 756 |
| R. A. SCHRACK, S. PENNER and J. E. LEISS - Low-energy photoproduction of neutral mesons from complex nuclei . . . . .                | » 759 |
| R. W. WILLIAMS - Mean free path of primary cosmic rays in the atmosphere . . . . .   | » 762 |
| D. CATTANI and M. GALLI - On the cosmic ray storms of July 1959 . . .  | » 765 |
| T. B. DAY, L. S. RODBERG, G. A. SNOW and J. SUCHER - Determination of $K^+$ -n P-wave phase shifts from $K^+$ -d reactions . . . . . | » 770 |
| F. SELLERI - Evidence for two pion-pion resonances . . . . .   | » 775 |
| M. BOCCIOLINI, G. DI CAPORACCIO, L. FOÀ and M. MANDÒ - Evidence for a new 191 min half-period activity in Nb . . . . .               | » 780 |
| G. CARERI, I. MODENA and M. SANTINI - New measurements of the spin-lattice relaxation time in liquid helium 3 . . . . .              | » 782 |

|  |       |
|--|-------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 784 |
|--|-------|

## N. 5 - 1° GIUGNO 1960

|   |          |
|---|----------|
| E. ARNOUS, W. HEITLER and L. O'RAIFEARTAIGH - On a convergent non-local field theory - II . . . . .   | pag. 785 |
| M. BORNEAS - The Lagrange function in a general problem . . . . .   | » 806    |
| M. CARRASSI and G. PASSATORE - On the double Compton process and some calculations of polarization effects - II . . . . .   | » 811    |
| S. JHA, R. K. GUPTA and H. G. DEVARE - On the gamma rays emitted in the decay of $^{140}_{59}\text{Pr}$ . . . . .   | » 829    |
| B. JUDEK - Reduction of spurious scattering in Ilford G-5 and K-5 emulsions . . . . .   | » 834    |
| H. GÖING - Die elastische und inelastische Streuung von negativen K-Mesonen an freien Protonen bei Energien bis 90 MeV . . . . .  | » 848    |
| A. FOFFANI, I. ZANON, G. GIACOMETTI, U. MAZZUCATO, G. FAVARO and G. SEMERANO - On the electronic spectrum of formyl fluoride . . . . .                                      | » 861    |
| E. FERRARI and G. JONA-LASINIO - Remarks on the appearance of ghost states in relativistic field theories . . . . .   | » 867    |
| E. FUSCHINI, G. GIACOMELLI, C. MARONI and P. VERONESI - $\beta$ - $\gamma$ angular correlation in $^{59}\text{Fe}$ and parity conservation in strong interactions . . . . . | » 886    |
| R. A. BRYAN - New semiphenomenological proton-proton potential . . . . .  | » 895    |
| V. DE SABBATA and A. TOMASINI - Surface effects in $(\gamma, n)$ and $(\gamma, p)$ reactions . . . . .  | » 903    |
| J. BOWCOCK, W. N. COTTINGHAM and D. LURIÉ - Effect of a pion-pion scattering resonance on low energy pion-nucleon scattering . . . . .                                      | » 918    |
| G. GIACOMETTI, G. RIGATTI e G. SEMERANO - Calcolo semiempirico dei primi livelli di energia elettronica della molecola HFCO . . . . .                                       | » 939    |
| M. CEVOLANI, S. PETRALIA, B. RIGHINI, U. VALDRÈ e G. VENTURINI - Reazione $^{27}\text{Al}(n, \alpha)^{24}\text{Na}$ indotta da neutroni di 15.2 MeV . . . . .               | » 950    |

*Lettere alla Redazione:*

|   |       |
|---|-------|
| N. A. PORTER - The Dirac monopole as a constituent of primary cosmic radiation . . . . .                                | » 958 |
| C. M. GARELLI, B. QUASSIATI and M. VIGONE - Possible interpretation of an unusual hyperon decay . . . . .               | » 960 |
| S. OKUBO - Some aspects of particle mixture of strange particles . . . . .  | » 963 |
| G. ROSEN - Poincaré's epistemological sum . . . . .   | » 966 |
| V. GUPTA and S. N. BISWAS - $CP$ invariance and non-linear pion interactions . . . . .                                  | » 971 |
| C. PELLEGRINI and L. TAU - On the connection between scattering and photoproduction of pions at high energies . . . . . | » 973 |

|  |       |
|--|-------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 976 |
|--|-------|

## N. 6 - 16 GIUGNO 1960

|  |          |
|--|----------|
| J. W. GARDNER - Markoff cascades with general source terms . . . . .   | pag. 977 |
| L. COLLI, M. G. MARCAZZAN, F. MERZARI, P. G. SONA and F. TONOLINI - Measurements on pick-up reactions in $^{31}\text{P}$ and $^{32}\text{S}$ . . . . . | » 991    |
| D. W. JOSEPH - Electron pair creation in $\pi^-p$ capture reactions from rest . . . . .  | » 997    |



|  |           |
|--|-----------|
| J. B. GARG and N. H. GALE - $^{60}\text{Ni}$ ( $\gamma$ - $\gamma$ ) angular correlation . . . . .   | pag. 1014 |
| D. S. NARAYAN and G. B. YODH - On the $N^2$ -component in extensive air showers . . . . .  | » 1020    |
| C. Q. ORSINI - On the relative abundance of carbon, nitrogen and oxygen in the cosmic rays . . . . .                                       | » 1040    |
| F. CERULUS and J. VON BEHR - Prong analysis of multiple production of pions at bevatron energy according to a statistical theory . . . . . | » 1046    |
| J. M. JAUCH - On Pauli's transformation . . . . .  | » 1068    |
| S. BERGIA, F. BONSIGNORI and A. STANGHELLINI - Pion production and the « isobaric » model . . . . .  | » 1073    |
| F. R. HALPERN - A compact expression for $S$ -matrix elements in theories with several interacting fields . . . . .                        | » 1085    |
| J. KULHÁNEK - On the Hamilton formalism in space-time . . . . .  | » 1092    |
| E. LUBKIN - Angular distributions . . . . .  | » 1098    |
| U. FACCHINI, I. IORI and E. MENICHELLA - Statistical emission of nucleons in reactions produced by 14 MeV neutrons . . . . .               | » 1109    |

*Lettere alla Redazione:*

|   |        |
|---|--------|
| R. J. HOMER, G. W. HUTCHINSON, W. K. MCFARLANE, A. W. O'DELL, R. RUBINSTEIN and E. J. SACHARIDIS - Angular dependence of polarization in p-p scattering at 970 MeV. Preliminary results . . . . . | » 1132 |
| L. CULHANE, D. KEEFE, A. KERNAN, J. LOSTY and A. MONTWILL - Preliminary results on the interactions in photographic emulsion of $K^-$ -mesons at 1.15 GeV/c . . . . .                             | » 1135 |
| D. JUDGE, H. SHIMODAIRA and Y. TAKAHASHI - On the substitution law in quantum field theory . . . . .  | » 1139 |
| A. P. BALACHANDRAN and N. R. RANGANATHAN - A note on the relative parity $p_{K\Sigma}$ . . . . .  | » 1142 |
| G. FURLAN and G. PERESSUTTI - Validity of Q.E.D. in $\mu$ pair production . . . . .   | » 1144 |
| W. ALLES - Remark on the $\tau^+$ meson decay . . . . .   | » 1148 |
| A. BIETTI - Virtual pion effects in longitudinal polarization and spectrum of neutrons from unpolarized $\mu^-$ absorbed at rest . . . . .  | » 1151 |
| G. LANZI, G. SIRAGUSA and L. ZANOTTI - Hyperfine structure of E.S.R. signals in phenothiazine perchlorate (semiquinone) and phenothiazine perbromide (quinone) . . . . .                          | » 1155 |
| S. FRANCHETTI - Some remarks on the theory of the liquid helium film . . . . .  | » 1158 |

|  |        |
|--|--------|
| <i>Libri ricevuti e Recensioni</i> . . . . . | » 1160 |
|--|--------|

|   |        |
|---|--------|
| <i>Indici del Volume XVI, Serie X, 1960</i> . . . . . | » 1161 |
|---|--------|



## INDICE ALFABETICO DEGLI AUTORI

La sigla L. si riferisce alle *Lettere alla Redazione*

|  |          |
|--|----------|
| ABATE E. - Considerazioni sui limiti di applicabilità del metodo degli atomi nelle molecole (L.) . . . . .   | pag. 190 |
| ADEMOLLO M., M. BOCCIOLINI, G. DI CAPORACCIO and M. MANDÒ. - On the $^{196}\text{Au}^m$ isomeric state (L.) . . . . .  | » 378    |
| AGARWAL S. P. (vedi POMERANTZ M. A.) . . . . .   | » 469    |
| AKANO M. (vedi SUZUKI R.) (L.) . . . . .   | » 570    |
| ALLES W. - Remark on the $\tau^+$ -meson decay (L.) . . . . .  | » 1148   |
| AMALDI E., A. BARBARO-GALTIERI, G. BARONI, C. CASTAGNOLI, M. FERRO-LUZZI, A. MANFREDINI, M. MUCHNIK, V. ROSSI, M. SEVERI - Production and decay of an $\bar{\Sigma}^+$ (L.) . . . . .                              | » 392    |
| ARECCHI T. F., E. GATTI and E. ZAGLIO - A new method for timing scintillation pulses (L.) . . . . .  | » 198    |
| ARNOUS E., W. HEITLER and Y. TAKAHASHI - On a convergent non-local field theory - I . . . . .  | » 671    |
| ARNOUS E., W. HEITLER and L. O'RAIFEARTAIGH - On a convergent non-local field theory - II . . . . .  | » 785    |
| ASHKIN J., T. FAZZINI, G. FIDECARO, Y. GOLDSCHMIDT-CLERMONT, N. H. LIPMAN, A. W. MERRISON and H. PAUL - A new measurement of the mean life of the positive pion. . . . .   | » 490    |
| BACHELET F., P. BALATA, A. M. CONFORTO and G. MARINI - Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 - Part I: The cosmic ray events and their correlation with geomagnetic events . . . . . | » 292    |
| BACHELET F., P. BALATA, A. M. CONFORTO and G. MARINI - Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 - Part II: The geomagnetic events. . . . .  | » 320    |
| BACKENSTOSS G. K., H. FRAUENFELDER, B. D. HYAMS, L. J. KOESTER and P. C. MARIN - An investigation of the stability of nucleons . . . . .   | » 749    |
| BALACHANDRAN A. P. and N. R. RANGANATHAN - A note on the relative parity $p_{K\pi}$ (L.) . . . . .   | » 1142   |
| BALATA P. (vedi BACHELET F.) . . . . .   | » 292    |
| BALATA P. (vedi BACHELET F.) . . . . .   | » 320    |
| BARBARO-GALTIERI A. (vedi AMALDI E.) (L.) . . . . .  | » 392    |
| BARONI G. (vedi AMALDI E.) (L.) . . . . .  | » 392    |
| BECK G. and H. M. NUSSENZEIG - On the physical interpretation of complex poles of the $S$ -matrix. . . . .   | » 416    |
| BERGIA S., F. BONSIGNORI and A. STANGHELLINI - Pion production and the « isobaric » model . . . . .  | » 1073   |
| BERNSTEIN J., M. GELL-MANN and L. MICHEL - On the renormalization of the axial vector coupling constant in $\beta$ -decay. . . . .   | » 560    |
| BHATTACHERJEE S. K. and S. K. MITRA - Beta-gamma directional correlation in $^{152}\text{Eu}$ . . . . .  | » 175    |
| BIALKOWSKI G. and A. JUREWICZ - A note on a possible classification of strangeness 2 mesons (L.) . . . . .   | » 756    |

|  |           |
|--|-----------|
| BIETTI A. - Virtual pion effects in longitudinal polarization and spectrum of neutrons from unpolarized $\mu^-$ absorbed at rest (L.) . . . . .                            | pag. 1151 |
| BISI A., A. FASANA and L. ZAPPA - Circular polarization of external bremsstrahlung from $\beta$ emitters . . . . .   | » 350     |
| BISWAS S., P. J. LAVAKARE, K. A. NEELAKANTAN and P. G. SHUKLA - The energy spectrum of nuclei with charge $Z \geq 6$ in the primary cosmic radiation . . . . .             | » 644     |
| BISWAS S. N. (vedi Gupta V.) (L.) . . . . .  | » 971     |
| BJORKEN J. D. and A. GOLDBERG - A test of approximation methods in potential scattering . . . . .  | » 539     |
| BLOHINČEV D. I. - Fluctuations of space-time metric (L.) . . . . .   | » 382     |
| BOATO G., G. CASANOVA and M. E. VALLAURI - Vapour pressure of isotopic liquids - II: Ne and A above boiling-point . . . . .  | » 505     |
| BOCCIOLINI M., G. DI CAPORACCIO, L. FOÀ and M. MANDÒ - Evidence for a new $191^m$ half-period activity in Nb (L.) . . . . .  | » 780     |
| BOCCIOLINI M. (vedi ADEMOLLO M.) (L.) . . . . .  | » 378     |
| BONSIGNORI F. (vedi BERGIA S.) . . . . .   | » 1073    |
| BORDONI P. G., M. NUOVO and L. VERDINI - Dislocation relaxation in zinc single crystal (L.) . . . . .  | » 373     |
| BORNEAS M. - The Lagrange function in a general problem . . . . .  | » 806     |
| BOWCOCK J., W. M. COTTINGHAM and D. LURIE - Effect of a pion-pion scattering resonance on low energy pion-nucleon scattering . . . . .                                     | » 918     |
| BRINI D., E. FUSCHINI, N. T. GRIMELLINI and D. S. R. MURTY - Compton effect on the bound electrons . . . . .   | » 727     |
| BRODSKI A. M. and D. IVANENKO - On the influence of weak interactions on electromagnetic properties of fermions . . . . .  | » 556     |
| BRYAN R. A. - New semiphenomenological proton-proton potential . . . . .   | » 895     |
| CABIBBO N., R. GATTO and C. ZEMACH - A theorem on the elimination of contact muon-electron interactions . . . . .  | » 168     |
| CARERI G., I. MODENA and F. SANTINI - New measurements of the spin-lattice relaxation time in liquid helium 3 (L.) . . . . .   | » 782     |
| CARRASSI M. and G. PASSATORE - On the double Compton process and some calculations of polarization effects - II . . . . .  | » 811     |
| CASANOVA G. (vedi BOATO G.) . . . . .  | » 505     |
| CASTAGNOLI C., M. MUCHNIK, G. GHIGO and R. RINZIVILLO - Photostar production between 500 and 1100 MeV . . . . .  | » 683     |
| CASTAGNOLI C. (vedi AMALDI E.) (L.) . . . . .  | » 392     |
| CATTANI D. and M. GALLI - On the cosmic ray storms of July 1959 (L.) . . . . .   | » 765     |
| CERULUS F. and J. VON BEHR - Prong analysis of multiple production of pions at bevatron energy according to a statistical theory . . . . .                                 | » 1046    |
| CEVOLANI M., S. PETRALIA, B. RIGHINI, U. VALDRÈ e G. VENTURINI - Reazione $^{27}\text{Al}(n, \alpha)^{24}\text{Na}$ indotta da neutroni di 15.2 MeV . . . . .              | » 950     |
| COLLI L., M. G. MARCAZZAN, F. MERZARI, P. G. SONA and F. TONOLINI - Measurements on pick-up reactions in $^{31}\text{P}$ and $^{32}\text{S}$ . . . . .                     | » 991     |
| CONFORTO A. M. (vedi BACHELET F.) . . . . .  | » 292     |
| CONFORTO A. M. (vedi BACHELET F.) . . . . .  | » 320     |
| COTTINGHAM W. M. (vedi BOWCOCK J.) . . . . .   | » 918     |
| CULHANE L., D. KEEFE, A. KERNAN, J. LOSTY and A. MONTWILL - Preliminary results on the interactions in photographic emulsion of $K^-$ -mesons at 1.15 GeV/c (L.) . . . . . | » 1135    |

|   |          |
|---|----------|
| CUZZOCREA P., G. PAPPALARDO and R. RICAMO - Cross section for $^{31}\text{P}(n, p)^{31}\text{Si}$ reaction up to 5 MeV (+) . . . . .  | pag. 450 |
| DALLAPORTA N. and L. K. PANDIT - Baryon mass-differences and symmetries of strong interactions . . . . .  | » 135    |
| DANIEL R. R., N. KAMESWARA RAO, P. K. MALHOTRA and Y. TSUZUKI - Some characteristic of inelastic proton-nucleon collisions produced by protons of energy 6.2 GeV in nuclear emulsions . . . . . | » 1      |
| DASCOLA G., C. LAMBORIZIO, S. MORA and I. ORTALLI - Emissions of hyperfragments in capture stars of negative hyperons at rest . . . . .   | » 241    |
| DAY T. B., L. S. RODBERG, G. A. SNOW and J. SUCHER - Determination of $\text{K}^+n$ P-wave phase shifts from $\text{K}^+d$ reactions (L.) . . . . .   | » 770    |
| DE SABBATA V. and A. TOMASINI - Surface effects in $(\gamma, n)$ and $(\gamma, p)$ reactions . . . . .  | » 903    |
| DE-SHALIT A. (vedi KATZ A.) . . . . .   | » 485    |
| DE TOLLIS B. - Anomalous moment of the $\mu$ -meson for different models of breakdown of quantum electrodynamics (L.) . . . . .   | » 203    |
| DEUTSCH S. - Influence de la chaleur sur la coloration des halos pleochroïques dans la biotite . . . . .  | » 269    |
| DEVARE H. G. (vedi JHA S.) . . . . .  | » 829    |
| DI CAPORACCO G. (vedi ADEMOLLO M.) (L.) . . . . .   | » 378    |
| DI CAPORACCO G. (vedi BOCCIOLINI M.) (L.) . . . . .   | » 780    |
| EBERLE E., M. NAGASAKI and L. SERTORIO - Independent particle model and photonuclear giant resonance . . . . .  | » 260    |
| EPSTEIN S. T. - On the origin of super-selection rules . . . . .  | » 362    |
| EPSTEIN S. T. - On the anisotropy of inertia (L.) . . . . .   | » 587    |
| EVANS D., F. HASSAN, K. K. NAGPAUL and N. SHAFI - On the interaction of $(200 \div 300)$ MeV $\text{K}^+$ -mesons in emulsion . . . . .   | » 476    |
| FACCHINI U., I. IORI and E. MENICHELLA - Statistical emission of nucleons in reactions produced by 14 MeV neutrons . . . . .  | » 1109   |
| FALICOV L. M. - The theory of photon packets and the Lennuier effect . . . . .  | » 247    |
| FARLEY F. J. M. - Excited nucleon interpretation of high energy nuclear interactions . . . . .  | » 209    |
| FASANA A. (vedi BISI A.) . . . . .  | » 350    |
| FAVARO G. (vedi FOFFANI A.) . . . . .   | » 861    |
| FAZZINI T. (vedi ASHKIN J.) . . . . .   | » 490    |
| FELDMAN G., P. T. MATTHEWS and A. SALAM - The inelastic scattering of elementary particles II. . . . .  | » 549    |
| FERRARI E. and G. JONA-LASINIO - Remarks on the appearance of ghost states in relativistic field theories . . . . .   | » 867    |
| FERRO-LUZZI M. (vedi AMALDI E.) (L.) . . . . .  | » 392    |
| FIDECARO G. (vedi ASHKIN J.) . . . . .  | » 490    |
| FLAMM D. - The electronic decay of $\Lambda^0$ derived indirectly by K-meson couplings (L.) . . . . .   | » 194    |
| FOÀ L. (vedi BOCCIOLINI M.) (L.) . . . . .  | » 780    |
| FOFFANI A., I. ZANON, G. GIACOMETTI, U. MAZZUCATO, G. FAVARO and G. SEMERANO - On the electronic spectrum of formyl fluoride . . . . .  | » 861    |
| FRANCHETTI S. - Some remarks on the theory of the liquid helium film (L.) . . . . .   | » 1158   |
| FRAUENFELDER H. (vedi BACKENSTOSS G. K.) . . . . .  | » 749    |
| FREDEN S. C., H. N. KORNBLUM and R. S. WHITE - Lifetimes, branching ratios, and asymmetries in $\Sigma$ -hyperon decays . . . . .   | » 611    |



|   |           |
|---|-----------|
| FURLAN G. and G. PERESSUTTI - Validity of Q.E.D. in $\mu$ pair production (L.)  | pag. 1144 |
| FUSCHINI E., G. GIACOMELLI, C. MARONI and P. VERONESI - $\beta$ - $\gamma$ angular correlation in $^{59}\text{Fe}$ and parity conservation in strong interactions . . .                               | » 886     |
| FUSCHINI E. (vedi BRINI D.) . . . . .   | » 727     |
| GALE N. H. (vedi J. B. GARG) . . . . .  | » 1014    |
| GALLI M. (vedi CATTANI D.) (L.) . . . . .   | » 765     |
| GARDNER J. W. - Markoff cascades with general source terms . . . . .  | » 977     |
| GARELLI C. M., B. QUASSIATI and M. VIGONE - Possible interpretations of an unusual hyperon decay (L.) . . . . .   | » 960     |
| GARG J. B. and N. H. GALE - $^{60}\text{Ni}$ ( $\gamma$ - $\gamma$ ) angular correlation . . . . .  | » 1014    |
| GATTI E. (vedi ARECCHI T. F.) (L.) . . . . .  | » 198     |
| GATTO R. (vedi CABIBBO N.) . . . . .  | » 168     |
| GE GAUFF CH. et J. P. LONCHAMP - Influence du développement sur la dimension transversale des traces d'ions lourds dans les émulsions ionographiques . . . . .  | » 520     |
| GELL-MANN M. (vedi BERNSTEIN J.) . . . . .  | » 560     |
| GELL-MANN M. and M. LÉVY - The axial vector current in $\beta$ -decay . . .   | » 705     |
| GÉMESY T., T. SÁNDOR and A. SOMOGYI - Cloud chamber study of extensive air showers . . . . .  | » 412     |
| GIACOMELLI G. (vedi FUSCHINI E.) . . . . .  | » 886     |
| GIACOMETTI G. (vedi FOFFANI A.) . . . . .   | » 861     |
| GIACOMETTI G., G. RIGATTI e G. SEMERANO - Calcolo semiempirico dei primi livelli di energia elettronica delle molecole HFCO . . . . .   | » 939     |
| GIANBIAGI J. J. - Analogy between Lorentz and Foldy-Wouthuysen transformation (L.) . . . . .  | » 202     |
| GHIGO G. (vedi CASTAGNOLI C.) . . . . .   | » 683     |
| GÖING H. - Die elastische und inelastische Streuung von negativen K-Mesonen an freien Protonen bei Energien bis 90 MeV . . . . .  | » 848     |
| GOLDBERG A. (vedi BJORKEN J. D.) . . . . .  | » 539     |
| GOLDSCHMIDT-CLERMONT Y. (vedi ASHKIN J.) . . . . .  | » 490     |
| GOURDIN M. and A. MARTIN - Photoproduction of pions on pions . . .  | » 78      |
| GRIMELLINI N. T. (vedi BRINI D.) . . . . .  | » 727     |
| GUPTA M. L. - The problem of the $\Sigma^-/\Sigma^+$ ratio in $K^-$ -p interaction in relation to the hypothesis of restricted symmetry . . . . .   | » 737     |
| GUPTA R. K. (vedi JHA S.) . . . . .   | » 829     |
| GUPTA V. and S. N. BISWAS - $CP$ invariance and non-linear pion interactions (L.) . . . . .   | » 971     |
| GÜRSEY F. - On the symmetries of strong and weak interactions . . .   | » 230     |
| HALBWACHS F. and J. P. VIGIER - Lie relations associated with relativistic rotators and bilocal theory (L.) . . . . .   | » 576     |
| HALPERN F. R. - A compact expression for $S$ -matrix elements in theories with several interacting fields . . . . .   | » 1085    |
| HASSAN F. (vedi EVANS D.) . . . . .   | » 476     |
| HATSUKADE S., R. E. MARSHAK, S. OKUBO and E. C. G. SUDARSHAN - Note on divergenceless currents and muon polarization in $K_{\mu 3}$ -decays . . .   | » 332     |
| HEITLER W. (vedi ARNOUS E.) . . . . .   | » 671     |
| HEITLER W. (vedi ARNOUS E.) . . . . .   | » 785     |
| HÖHLER G. - On the energy dependence of the $\alpha_{33}$ -phase-shift (L.) . .   | » 585     |
| HOMER R. J., G. W. HUTCHINSON, W. K. MCFARLANE, A. W. O' DELL, R. RUBINSTEIN and E. J. SACHARIDIS - Angular dependence of polarization in p-p scattering at 970 MeV. Preliminary results (L.) . . . . | » 1132    |

|   |           |
|---|-----------|
| HUTCHINSON G. W. (vedi HOMER R. J.) (L.) . . . . .  | pag. 1132 |
| HYAMS B. D. (vedi BACKENSTOSS G. K.) . . . . .  | » 749     |
| INGRAHAM R. L. - A free nucleon theory . . . . .  | » 104     |
| IORI I. (vedi FUSCHINI U.) . . . . .  | » 1109    |
| IVANENKO D. and V. LULKA - On mesonic decays of the hypernucleus ${}^3\text{H}$ (L.) . . . . .  | » 582     |
| IVANENKO D. (vedi BRODSKI A. M.) . . . . .  | » 556     |
| JANKOVIĆ Z. - Remarks on the paper by K. STIEGLER: « On the mechanical foundation of the theory of special relativity » (Nuovo Cimento <b>13</b> , 873 (1959)) (L.) . . . . . | » 569     |
| JAUCH J. M. - On Pauli's transformation . . . . .   | » 1068    |
| JHA S., R. K. GUPTA and H. G. DEVARE - On the $\gamma$ -rays emitted in the decay of ${}^{140}_{59}\text{Pr}$ . . . . .   | » 829     |
| JONA-LASINIO G. (vedi FERRARI E.) . . . . .   | » 867     |
| JONGEJANS B. - On the grain density in Ilford G-5 emulsion of singly charged, relativistic particles . . . . .  | » 625     |
| JOSEPH D. W. - Electron pair creation in $\pi^- + p$ capture reactions from rest . . . . .  | » 997     |
| JUDEK B. - Reduction of spurious scattering in Ilford G-5 and K-5 emulsions . . . . .   | » 834     |
| JUDGE D., H. SHIMODAIRA and Y. TAKAHASHI - On the substitution law in quantum field theory (L.) . . . . .   | » 1139    |
| JUREWICZ A. (vedi BIALKOWSKI G.) (L.) . . . . .   | » 756     |
| KAMESWARA RAO N. (vedi DANIEL R. R.) . . . . .  | » I       |
| KATZ A., A. DE SHALIT and I. TALMI - The superconducting state in the Bethe-Goldstone approximation . . . . .   | » 485     |
| KAZES E. - On the high energy behavior in field theory (L.) . . . . .   | » 368     |
| KEEFE D. (vedi CULHANE L.) (L.) . . . . .   | » 1135    |
| KELLY E. R. and A. RUSSEK - Diffraction of a plane electromagnetic wave by cylinders with anisotropic conductivity. . . . .   | » 593     |
| KERNAN A. (vedi CULHANE L.) (L.) . . . . .  | » 1135    |
| KERR R. P. - On the quasi-static approximation in general relativity . . . . .  | » 26      |
| KOESTER L. J. (vedi BACKENSTOSS G. K.) . . . . .  | » 749     |
| KORNBLUM H. N. (vedi FREDEN S. C.) . . . . .  | » 611     |
| KULHANEK J. - On the Hamilton formalism in the space-time . . . . .   | » 1092    |
| LAMBORIZIO C. (vedi DASCOLA G.) . . . . .   | » 241     |
| LANZI G., G. SIRAGUSA and L. ZANOTTI - Hyperfine structure of E.S.R. signals in phenotiazine perchlorate (semiquinone) and phenotiazine perbromide (quinone) (L.) . . . . .   | » 1155    |
| LAVAKARE P. J. (vedi BISWAS S.) . . . . .   | » 644     |
| LE COUTEUR K. J. - Integral representation of a double commutator . . . . .   | » 227     |
| LEISS J. E. (vedi SCHRACK R. A.) (L.) . . . . .   | » 759     |
| LÉVY M. (vedi GELL-MANN M.) . . . . .   | » 705     |
| LIPMAN N. H. (vedi ASHKIN J.) . . . . .   | » 490     |
| LOMONT J. S. and H. E. MOSES - Uniqueness of the orbital angular momentum operators . . . . .   | » 96      |
| LONCHAMP J. P. (vedi GEGAUFF CH.) . . . . .   | » 520     |
| LOSTY J. (vedi CULHANE L.) (L.) . . . . .   | » 1135    |
| LURKIN E. - Angular distributions . . . . .   | » 1098    |
| LULKA V. (vedi IVANENKO D.) (L.) . . . . .  | » 582     |
| LURIÉ D. (vedi BOWCOCK J.) . . . . .  | » 918     |

|   |      |      |
|---|------|------|
| MALHOTRA P. K. (vedi DANIEL R. R.) . . . . .  | pag. | 1    |
| MANDÒ M. (vedi ADEMOLLO M.) (L.) . . . . .  | »    | 378  |
| MANDÒ M. (vedi BOCCOLINI M.) (L.) . . . . .   | »    | 780  |
| MANFREDINI A. (vedi Amaldi E.) (L.) . . . . .   | »    | 392  |
| MARCAZZAN M. G. (vedi Colli L.) . . . . .   | »    | 991  |
| MARINI G. (vedi BACHELET F.) . . . . .  | »    | 292  |
| MARINI G. (vedi BACHELET F.) . . . . .  | »    | 320  |
| MARONI C. (vedi FUSCHINI E.) . . . . .  | »    | 886  |
| MARSHAK R. E. (vedi HATSUKADE S.) . . . . .   | »    | 332  |
| MARTIN A. (vedi GOURDIN M.) . . . . .   | »    | 78   |
| MATTHEWS P. T. (vedi FELDMAN G.) . . . . .  | »    | 549  |
| MAZZUCATO U. (vedi FOFFANI A.) . . . . .  | »    | 861  |
| McFARLANE (vedi HOMER R. J.) (L.) . . . . .   | »    | 1132 |
| MENICHELLA E. (vedi FACCHINI U.) . . . . .  | »    | 1109 |
| MERRISON A. W. (vedi ASHKIN J.) . . . . .   | »    | 490  |
| MERZARI F. (vedi COLLI L.) . . . . .  | »    | 991  |
| MICHEL L. (vedi BERNSTEIN J.) . . . . .   | »    | 560  |
| MITRA S. K. (vedi BHATTACHIERJEE S. K.) . . . . .   | »    | 175  |
| MODENA I. (vedi CARERI G.) (L.) . . . . .   | »    | 782  |
| MONTWILL A. (vedi CULHANE L.) (L.) . . . . .  | »    | 1135 |
| MORA S. (vedi DASCOLA G.) . . . . .   | »    | 241  |
| MOSES H. E. (vedi LOMONT J. S.) . . . . .   | »    | 96   |
| MUCHNIK M. (vedi AMALDI E.) (L.) . . . . .  | »    | 392  |
| MUCHNIK M. (vedi CASTAGNOLI C.) . . . . .   | »    | 683  |
| MURTY D. S. R. (vedi BRINI D.) . . . . .  | »    | 727  |
| NAGPAUL K. K. (vedi EVANS D.) . . . . .   | »    | 476  |
| NARANAN S., R. RAGHAVAN, P. V. RAMANAMURTHY, B. V. SREEKANTAN and<br>A. SUBRAMANIAN - Cloud chamber evidence for the presence of simul-<br>taneous high energy nuclear-active particles at mountain altitudes | »    | 401  |
| NARAYAN D. S. and G. B. YODH - On the $N^0$ -component in extensive<br>air showers . . . . .  | »    | 1020 |
| NEELAKANTAN K. A. (vedi BISWAS S.) . . . . .  | »    | 644  |
| NUOVO M. (vedi BORDONI P. G.) (L.) . . . . .  | »    | 373  |
| NUSSENZVEIG H. M. (vedi BECK G.) . . . . .  | »    | 416  |
| O' DELL A. W. (vedi HOMER R. J.) (L.) . . . . .   | »    | 1132 |
| OKUBO S. - Some aspects of particle mixture of strange particles (L.)   | »    | 963  |
| OKUBO S. (vedi HATSUKADE S.) . . . . .  | »    | 332  |
| ONEDA S. (vedi PATI J. C.) (L.) . . . . .   | »    | 365  |
| O'RAIFEARTAIGH L. (vedi Arnous E.) . . . . .  | »    | 785  |
| ORSINI C. Q. - On the relative abundance of carbon, nitrogen and oxygen<br>in the cosmic rays . . . . .   | »    | 1040 |
| ORTALLI I. (vedi DASCOLA G.) . . . . .  | »    | 241  |
| PANDIT L. K. (vedi DALLAPORTA N.) . . . . .   | »    | 135  |
| PAPPALARDO G. (vedi CUZZOCREA P.) . . . . .   | »    | 450  |
| PASSATORE G. (vedi CARRASSI M.) . . . . .   | »    | 811  |
| PATI J. C. and S. ONEDA - An attempt at universal four-fermion inte-<br>raction (L.) . . . . .  | »    | 365  |
| PAUL H. (vedi ASHKIN J.) . . . . .  | »    | 490  |
| PELLEGRINI C. and L. TAU - On the connection between scattering and<br>photoproduction of pions at high energies (L.) . . . . .   | »    | 973  |



|   |          |
|---|----------|
| PENNER S. (vedi SCHRACK R. A.) (L.) . . . . .   | pag. 759 |
| PERESSUTI G. (vedi FURLAN G.) (L.) . . . . .  | » 1144   |
| PETRALIA S. (vedi CEVOLANI M.) . . . . .  | » 950    |
| POMERANTZ M. A., V. R. POTNIS and S. P. AGARWAL - Cosmic ray investigation with an airborne neutron monitor . . . . .   | » 469    |
| PORTER N. A. - The Dirac monopole as a constituent of primary cosmic radiation (L.) . . . . .   | » 958    |
| POTNIS V. R. (vedi POMERANTZ M. A.) . . . . .   | » 469    |
| QUASSIATI B. (vedi GARELLI C. M.) (L.) . . . . .  | » 960    |
| RAGHAVAN R. (vedi NARANAN S.) . . . . .   | » 401    |
| RAMANAMURTHY P. V. (vedi NARANAN S.) . . . . .  | » 401    |
| RANGANATHAN N. R. (vedi BALACHANDRAN A. P.) (L.) . . . . .  | » 1142   |
| RICAMO R. (vedi CUZZOCREA P.) . . . . .   | » 450    |
| RICCI F. P. - Quantum effects on the radial distribution function of liquids . . . . .  | » 532    |
| RIGATTI G. (vedi GIACOMETTI G.) . . . . .   | » 939    |
| RIGHINI B. (vedi CEVOLANI M.) . . . . .   | » 950    |
| RINZIVILLO R. (vedi CASTAGNOLI C.) . . . . .  | » 683    |
| RODBERG L. S. (vedi DAY T. B.) (L.) . . . . .   | » 770    |
| ROSEN G. - Poincaré's epistemological sum (L.) . . . . .  | » 966    |
| ROSSI V. (vedi AMALDI E.) (L.) . . . . .  | » 392    |
| RUBINSTEIN R. (vedi HOMER R. J. (L.) . . . . .  | » 1132   |
| RUSSEK A. (vedi KELLY E. R.) . . . . .  | » 593    |
| SACHARIDIS E. J. (vedi HOMER R. J. (L.) . . . . .   | » 1132   |
| SAKURAI J. J. - Pion resonances (L.) . . . . .  | » 388    |
| SALAM A. (vedi FELDMAN G.) . . . . .  | » 549    |
| SÁNDOR T. (vedi GÉMESY T.) . . . . .  | » 412    |
| SANTINI F. (vedi CARERI G.) (L.) . . . . .  | » 782    |
| SCHRACK R. A., S. PENNER and J. E. LEISS - Low-energy photoproduction of neutral mesons from complex nuclei (L.) . . . . .  | » 759    |
| SELLERI F. - Evidence for two pion-pion resonances (L.) . . . . .   | » 775    |
| SEMERANO G. (vedi FOFFANI A.) . . . . .   | » 861    |
| SEMERANO G. (vedi GIACOMETTI G.) . . . . .  | » 939    |
| SEVERI M. (vedi AMALDI E.) (L.) . . . . .   | » 392    |
| SHAFI N. (vedi EVANS D.) . . . . .  | » 476    |
| SHARMA H. D. - Influence of the inner electrode on the threshold potential using Siemens' type ozonizers under low frequency silent electric discharge . . . . .  | » 128    |
| SHIMODAIRA H. (vedi JUDGE D.) (L.) . . . . .  | » 1139   |
| SHUKLA P. G. (vedi BISWAS S.) . . . . .   | » 644    |
| SIRAGUSA G. (vedi LANZI G.) (L.) . . . . .  | » 1155   |
| SNOW G. A. (vedi DAY T. B.) (L.) . . . . .  | » 770    |
| SOMOGYI A. (vedi GÉMESY T.) . . . . .   | » 412    |
| SONA P. G. (vedi COLLI L.) . . . . .  | » 991    |
| SREEKANTAN B. V. (vedi NARANAN S.) . . . . .  | » 401    |
| STANGHELINI A. (vedi BERGIA S.) . . . . .   | » 1073   |
| STIEGLER K. - Antwort auf die Bemerkungen von Z. Janković zu meiner Abhandlung: « On the mechanical foundation of the theory of special relativity » (Nuovo Cimento, <b>13</b> , 873 (1959)) (L.) . . . . . | » 579    |
| SUBBA RAO B. N. - $\gamma$ -ray transitions in $^{155}\text{Gd}$ . . . . .  | » 283    |

|  |          |
|--|----------|
| SUBRAMANIAN A. (vedi NARANAN S.) . . . . .   | pag. 401 |
| SUCHER J. (vedi DAY T. B.) (L.) . . . . .  | » 770    |
| SUDARSHAN E. C. G. (vedi HATSUKADE S.) . . . . .   | » 332    |
| SUZUKI R. and M. AKANO - Supercurrent and energy gap (L.) . . . . .  | » 570    |
| TAKAHASHI Y. (vedi ARNOUS E.) . . . . .  | » 671    |
| TAKAHASHI Y. (vedi JUDGE D.) (L.) . . . . .  | » 1139   |
| TALMI I. (vedi KATZ A.) . . . . .  | » 485    |
| TANIUTI T. - The canonical theory of motion of charged particles in<br>external electromagnetic fields (L.) . . . . .    | » 572    |
| TAU L. (vedi PELLEGRINI C.) (L.) . . . . .   | » 973    |
| TERRELL J. - Relativistic observations and the clock problem . . . . .   | » 457    |
| TOMASINI A. (vedi DE SABBATA V.) . . . . .   | » 903    |
| TONOLINI F. (vedi COLLI L.) . . . . .  | » 991    |
| TORALDO DI FRANCIA G. - On the theory of some Čerenkovian effects . . . . .  | » 61     |
| TSUZUKI Y. (vedi DANIEL R. R.) . . . . .   | » 1      |
| TYAGARAJA RAO S. - A technique for eliminating the variation of mass<br>with velocity in relativistic problems . . . . . | » 274    |
| VALDRÈ U. (vedi CEVOLANI M.) . . . . .   | » 950    |
| VALLAURI M. E. (vedi BOATO G.) . . . . .   | » 505    |
| VENTURINI G. (vedi CEVOLANI M.) . . . . .  | » 950    |
| VERDINI L. (vedi BORDONI P. G.) (L.) . . . . .   | » 373    |
| VERONESI P. (vedi FUSCHINI E.) . . . . .   | » 886    |
| VIGIER J. P. (vedi HALBWACHS F.) (L.) . . . . .  | » 576    |
| VIGONE M. (vedi GARELLI C. M.) (L.) . . . . .  | » 960    |
| VON BEHR J. (vedi CERULUS F.) . . . . .  | » 1046   |
| YODH G. B. (vedi NARAYAN D. S.) . . . . .  | » 1020   |
| YUNG SU TSAI - Radiative corrections to the e-e scattering (L.) . . . . .  | » 370    |
| WALECKA J. D. - The binding energy of particles in nuclear matter . . . . .  | » 342    |
| WHITE R. S. (vedi FREDEN S. C.) . . . . .  | » 611    |
| WILLIAMS R. W. - Mean free path of primary cosmic rays in the atmo-<br>sphere (L.) . . . . .                             | » 762    |
| ZAGLIO E. (vedi ARECCHI T. F.) (L.) . . . . .  | » 198    |
| ZANON I. (vedi FOFFANI A.) . . . . .   | » 861    |
| ZANOTTI L. (vedi LANZI G.) (L.) . . . . .  | » 1155   |
| ZAPPA L. (vedi BISI A.) . . . . .  | » 350    |
| ZEMACH C. (vedi CABIBBO N.) . . . . .  | » 168    |
| ZIMMERMANN W. - One-particle singularities of Green's functions in quantum<br>field theory - II . . . . .                | » 690    |

# INDICE ANALITICO PER MATERIE

## APPARATI, STRUMENTI E TECNICHE SPERIMENTALI

|  |          |
|--|----------|
| Cloud chamber study of extensive air showers, <i>T. Gémesy, T. Sandor and A. Somogyi</i> . . . . .   | pag. 412 |
| Grain density in Ilford G-5 emulsion of singly charged, relativistic particles (On the), <i>B. Jongejans</i> . . . . .   | » 625    |
| Influence du developpement sur la dimension transversale des traces <i>J. P. Lonchamp</i> . . . . .  | » 520    |
| Influence of the inner electrode on the threshold potential using Siemens' type ozonizers under low frequency silent electric discharge, <i>H. D. Sharma</i> . . . . . | » 128    |
| Method for timing scintillation pulses (A new) (L.), <i>T. F. Arecchi, E. Gatti and E. Zaglio</i> . . . . .  | » 198    |
| Reduction of spurious scattering in Ilford G-5 and K-5 emulsions, <i>B. Judek</i> . . . . .  | » 834    |

## ELETTRODINAMICA E TEORIA DEI CAMPI

|   |        |
|---|--------|
| Analogy between Lorentz and Foldy-Wouthuysen transformation (L.), <i>J. J. Gianbiagi</i> . . . . .                                | » 202  |
| Anysotropy of inertia (On the) (L.), <i>S. T. Epstein</i> . . . . .   | » 587  |
| An attempt at universal four-fermion interaction (L.), <i>J. C. Pati and S. Oneda</i> . . . . .                                   | » 365  |
| Axial vector current in $\beta$ -decay (The), <i>M. Gell-Mann and M. Lévy</i> . . . . .   | » 705  |
| Binding energy of particles in nuclear matter (The), <i>J. D. Walecka</i> . . . . .   | » 342  |
| Canonical theory of motion of charged particles in external electromagnetic fields (The) (L.), <i>T. Taniuti</i> . . . . .        | » 572  |
| Compact expression for <i>S</i> -matrix elements in theories with several interacting fields (A), <i>F. R. Halpern</i> . . . . .  | » 1085 |
| Compton effect on the bound electrons, <i>D. Brini, E. Fuschini, N. T. Grimmellini and D. S. R. Murty</i> . . . . .               | » 727  |
| Convergent non-local field theory (On a) - I, <i>E. Arnous, W. Heitler and Y. Takahashi</i> . . . . .                             | » 671  |
| Convergent non-local field theory (On a) - II, <i>E. Arnous, W. Heitler and L. O'Raifeartaigh</i> . . . . .                       | » 785  |
| CP Invariance and non-linear pion interaction (L.), <i>V. Gupta and S. N. Biswas</i> . . . . .                                    | » 971  |
| Double Compton process and some calculations of polarization effects (On the) - II, <i>M. Carrassi and G. Passatore</i> . . . . . | » 811  |
| Free nucleon theory (A), <i>R. L. Ingraham</i> . . . . .  | » 104  |
| High energy behavior in field theory (On the) (L.), <i>E. Kazes</i> . . . . .   | » 368  |
| Influence of weak interactions on electromagnetic properties of fermions, <i>A. M. Brodski and D. Ivanenko</i> . . . . .          | » 556  |
| Integral representation of a double commutator, <i>K. J. Le Couteur</i> . . . . .   | » 227  |



|  |          |
|--|----------|
| Lagrange function in a general problem (The), <i>M. Borneas</i> . . . . .  | pag. 806 |
| Lie relations associated with relativistic rotators and bilocal theory (L.),<br><i>F. Halbwachs</i> and <i>J.-P. Vigiér</i> . . . . .                | » 576    |
| New semiphenomenological proton-proton potential, <i>R. A. Bryan</i> . . . . .   | » 895    |
| One-particle singularities of Green's functions in quantum field theory - II,<br><i>W. Zimmermann</i> . . . . .                                      | » 690    |
| On Pauli's transformation, <i>J. M. Jauch</i> . . . . .  | » 1068   |
| Physical interpretation of complex poles of the S-matrix (On the),<br><i>G. Beck</i> and <i>H. M. Nussenzweig</i> . . . . .                          | » 416    |
| Radiative correction to the e-e scattering (L.), <i>Yung Su Tsai</i> . . . . .   | » 370    |
| Remarks on the appearance of ghost states in relativistic field theories,<br><i>E. Ferrari</i> and <i>G. Jona-Lasinio</i> . . . . .                  | » 867    |
| Renormalization of the axial vector coupling constant in $\beta$ -decay,<br><i>J. Bernstein</i> , <i>M. Gell-Mann</i> and <i>L. Michel</i> . . . . . | » 560    |
| Substitution law in quantum field theory (On the) (L.), <i>D. Judge</i> ,<br><i>H. Shimodaira</i> and <i>Y. Takahashi</i> . . . . .                  | » 1139   |
| Symmetries of strong and weak interactions (On the), <i>F. Gürsey</i> . . . . .  | » 230    |
| Test of approximation methods in potential scattering (A), <i>J. D. Bjorken</i><br>and <i>A. Goldberg</i> . . . . .                                  | » 539    |
| Theorem on the elimination of contact muon-electron interactions (A),<br><i>N. Cabibbo</i> , <i>R. Gatto</i> and <i>C. Zemach</i> . . . . .          | » 168    |
| Theory of photon packets and the Lennuier effect, <i>L. M. Falicov</i> . . . . .   | » 247    |
| Theory of some Čerenkovian effects, <i>G. Toraldo di Francia</i> . . . . .   | » 61     |
| Uniqueness of the orbital angular momentum operators, <i>J. S. Lomont</i><br>and <i>H. E. Moses</i> . . . . .  | » 96     |

## ELETTRROMAGNETISMO E OTTICA

|  |       |
|--|-------|
| Diffraction of a plane electromagnetic wave by cilindres with anisotropic<br>conductivity, <i>E. R. Kelly</i> and <i>A. Russek</i> . . . . . | » 593 |
|--|-------|

## IPERFRAMMENTI

|  |       |
|--|-------|
| Emission of hyperfragments in capture stars of negative hyperons at<br>rest, <i>G. Dascola</i> , <i>C. Lamborizio</i> , <i>S. Mora</i> and <i>I. Ortalli</i> . . . . . | » 241 |
|--|-------|

## NUCLEI

|  |       |
|--|-------|
| Beta-gamma directional correlation in $^{152}\text{Eu}$ , <i>S. K. Bhattacharjee</i> and<br><i>S. K. Mitra</i> . . . . .   | » 175 |
| Circular polarization of external bremsstrahlung from $\beta$ emitters, <i>A. Bisi</i> ,<br><i>A. Fasana</i> and <i>L. Zappa</i> . . . . .                           | » 350 |
| Cross section for the $^{31}\text{P}(n, p)^{31}\text{Si}$ reaction up to 5 MeV, <i>P. Cuzzocrea</i> , <i>G.</i><br><i>Pappalardo</i> and <i>R. Ricamo</i> . . . . .  | » 450 |
| Evidence for a new 191 min half-period activity in Nb (L.), <i>M. Boccio-</i><br><i>lini</i> , <i>G. Di Caporiacco</i> , <i>L. Foà</i> and <i>M. Mandò</i> . . . . . | » 780 |

|  |          |
|--|----------|
| $\gamma$ -ray transitions in $^{155}\text{Gd}$ , <i>B. N. Subba Rao</i> . . . . .  | pag. 283 |
| $\gamma$ -rays emitted in the decay of $^{140}_{59}\text{Pr}$ (On the), <i>S. Jha, R. K. Gupta and H. G. Devare</i> . . . . .                                      | » 829    |
| Measurements on pick-up reactions in $^{31}\text{P}$ $^{32}\text{S}$ , <i>L. Colli, M. G. Marazzan, F. Merzari, P. G. Sona and F. Tonolini</i> . . . . .           | » 991    |
| $^{62}\text{Ni}$ ( $\gamma$ - $\gamma$ ) angular correlation, <i>J. B. Garg and N. H. Gale</i> . . . . .   | » 1014   |
| Reazione $^{27}\text{Al}(n, \alpha)^{24}\text{Na}$ indotta da neutroni da 15.2 MeV, <i>M. Cevolani, S. Petruia, B. Righini, U. Valdrè e G. Venturini</i> . . . . . | » 950    |
| Surface effects in ( $\gamma, n$ ) and ( $\gamma, p$ ) reactions, <i>V. De Sabbata and A. Tomasini</i> . . . . .   | » 903    |

## PARTICELLE

|  |        |
|--|--------|
| Angular dependence of polarization in p-p scattering at 970 MeV. Preliminary results (L.), <i>R. J. Homer, G. W. Hutchinson, W. K. McFarlane, A. W. O' Dell, R. Rubinstein and E. J. Sacharidis</i> . . . . .          | » 1132 |
| Angular distributions, <i>E. Lubkin</i> . . . . .  | » 1098 |
| Anomalous moment of the $\mu$ -meson for different models of breakdown of quantum electrodynamics (L.), <i>B. De Tollis</i> . . . . .  | » 203  |
| Aspects of particle mixture of strange particles (Some) (L.), <i>S. Okubo</i> . . . . .  | » 963  |
| Baryon mass-differences and symmetries of strong interactions, <i>N. Dal-laporta and L. K. Pandit</i> . . . . .  | » 135  |
| $\beta$ - $\gamma$ angular correlation in $^{59}\text{Fe}$ and parity conservation in strong inter-actions, <i>E. Fuschini, G. Giacomelli, C. Maroni and P. Veronesi</i> . . . . .                                     | » 886  |
| Characteristic of inelastic proton-nucleon collisions produced by protons of energy 6.2 GeV in nuclear emulsions (Some), <i>R. R. Daniel, N. Kames-wara Rao, P. K. Malhotra and Y. Tsuzuki</i> . . . . .               | » 1    |
| Cloud chamber evidence for the presence of simultaneous high energy nuclear-active particles at mountain altitudes, <i>S. Naranan, R. Ra-ghavan, P. V. Ramanamurthy, B. V. Sreekantan and A. Subramanian</i> . . . . . | » 401  |
| Connection between scattering and photoproduction of pions at high energies (On the), (L.), <i>C. Pellegrini and L. Tau</i> . . . . .  | » 973  |
| Determination of $K^+$ -n P-wave phase shifts from $K^+$ -d reactions (L.), <i>T. B. Day, L. S. Rodberg, G. A. Snow and J. Sucher</i> . . . . .  | » 770  |
| Dirac monopole as a constituent of primary cosmic radiation (L.), <i>N. A. Porter</i> . . . . .  | » 958  |
| Divergenceless currents and muon polarization in $K_3$ decays (Note on), <i>S. Hatsukade, R. E. Marshak, S. Okubo and E. C. G. Sudarshan</i> . . . . .   | » 332  |
| Effect of a pion-pion scattering resonance on low energy pion-nucleon scattering, <i>J. Boucock, W. M. Cottingham and D. Lurié</i> . . . . .   | » 918  |
| Die elastische und inelastische Streuung von negativen K-Mesonen an freien Protonen bei Energien bis 90 MeV, <i>H. Göing</i> . . . . .   | » 848  |
| Electron pair creation in $\pi^-$ -p capture reactions from rest, <i>D. W. Joseph</i> . . . . .  | » 997  |
| Electronic decay of $\Lambda^0$ derived indirectly by K-meson coupling (The) (L.), <i>D. Flamm</i> . . . . .   | » 194  |
| Energy dependence of the $\alpha_{33}$ -phase-shift (On the) (L.), <i>G. Höhler</i> . . . . .  | » 585  |
| Evidence for two pion-pion resonances (L.), <i>F. Selleri</i> . . . . .  | » 775  |
| Excited nucleon interpretation of high energy nuclear interactions, <i>F. J. M. Farley</i> . . . . .   | » 209  |

|  |          |
|--|----------|
| Independent particle model and photonuclear giant resonance, <i>E. Eberle, M. Nagasaki and L. Sertorio</i> . . . . .   | pag. 260 |
| Inelastic scattering of elementary particles (The) - II, <i>G. Feldman, P. T. Matthews and A. Salam</i> . . . . .  | » 549    |
| Interaction of (200÷300) MeV $K^+$ -mesons in emulsion (On the), <i>D. Evans, F. Hassan, K. K. Nagpaul and N. Shafi</i> . . . . .  | » 476    |
| Investigation of the stability of nucleons (An), <i>G. K. Backenstoss, H. Frauenfelder, B. D. Hyams, L. J. Koester and P. C. Marin</i> . . . . .   | » 749    |
| Lifetimes, branching ratios, and asymmetries in $\Sigma$ -hyperon decays, <i>S. C. Freden, H. N. Kornblum and R. S. White</i> . . . . .  | » 611    |
| Low-energy photoproduction of neutral mesons from complex nuclei (L.), <i>R. A. Schrack, S. Penner and J. E. Leiss</i> . . . . .   | » 759    |
| Mesonic decays of the hypernucleus $^3H$ (L.), <i>D. Ivanenko and V. Lulka</i> . . . . .   | » 582    |
| New measurement of the mean life of the positive pion (A), <i>J. Ashkin, T. Fazzini, G. Fidecaro, Y. Goldschmidt-Clermont, N. H. Lipman, A. W. Merrison and H. Paul</i> . . . . .              | » 490    |
| Photoproduction of pions on pions, <i>M. Gourdin and A. Martin</i> . . . . .   | » 78     |
| Photostar production between 500 and 1100 MeV, <i>C. Castagnoli, M. Muchnik, G. Ghigo and R. Rinzivillo</i> . . . . .  | » 683    |
| Pion production and the « isobaric » model, <i>S. Bergia, F. Bonsignori and A. Stanghellini</i> . . . . .  | » 1073   |
| Pion resonances (L.), <i>J. J. Sakurai</i> . . . . .   | » 388    |
| Possible classification of strangeness 2 mesons (Note on a) (L.), <i>G. Bialkowski and A. Jurewicz</i> . . . . .   | » 756    |
| Possible interpretations of an unusual hyperon decay (L.), <i>C. M. Garelli, B. Quassioti and M. Vigone</i> . . . . .  | » 960    |
| Preliminary results on the interactions in photographic emulsion on $K^-$ -mesons at 1.5 GeV/c (L.), <i>L. Culhane, D. Keefe, A. Kernan, J. Losty and A. Montwill</i> . . . . .                | » 1135   |
| Problem of the $\Sigma^-/\Sigma^+$ ratio in $K^-p$ interaction in relation to the hypothesis of restricted symmetry (The), <i>M. L. Gupta</i> . . . . .  | » 737    |
| Production and decay of an $\bar{\Sigma}^+$ (L.), <i>E. Amaldi, A. Barbaro-Galtieri, G. Baroni, C. Castagnoli, M. Ferro-Luzzi, A. Manfredini, M. Muchnik, V. Rossi and M. Severi</i> . . . . . | » 392    |
| Relative parity $p_{K\Sigma}$ (A note on the) (L.), <i>A. P. Balachandran and N. R. Ranganathan</i> . . . . .  | » 1142   |
| Statistical emission of nucleons in reactions produced by 14 MeV neutrons, <i>U. Facchini, I. Iori and E. Menichella</i> . . . . .   | » 1109   |
| $\tau^+$ -meson decay (Remarks on) (L.), <i>W. Alles</i> . . . . .   | » 1148   |
| Validity of Q.E.D. in pair production (L.), <i>G. Furlan and G. Peressutti</i> . . . . .   | » 1114   |
| Virtual pion effects in longitudinal polarization and spectrum of neutrons from unpolarized $\mu^-$ absorbed at rest (L.), <i>A. Bietti</i> . . . . .  | » 1151   |

# RADIOAZIONE COSMICA

|  |       |
|--|-------|
| Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 - Part I: The cosmic ray events and their correlation with geomagnetic events, <i>F. Bachelet, P. Balata, A. M. Conforto and G. Marini</i> . . . . . | » 292 |
|--|-------|



|  |          |
|--|----------|
| Cosmic ray and geomagnetic disturbances from July 1957 to July 1958 -<br>Part II: The geomagnetic events, <i>F. Bachelet, P. Balata, A. M. Con-</i><br><i>forto</i> and <i>G. Marini</i> . . . . .                               | pag. 320 |
| Cosmic ray investigation with an airborne neutron monitor, <i>M. A. Po-</i><br><i>merantz, V. R. Potnis</i> and <i>S. P. Agarwal</i> . . . . .   | » 469    |
| Cosmic ray storms of July 1959 (On the) (L.), <i>D. Cattani</i> and <i>M. Galli</i> . . . . .  | » 765    |
| Energy spectrum of nuclei with charge $Z \geq 6$ in the primary cosmic<br>radiation (The), <i>S. Biswas, P. J. Lavakare, K. A. Neelakantan</i> and<br><i>P. G. Shukla</i> . . . . .  | » 644    |
| Markoff cascades with general source terms, <i>J. W. Gardner</i> . . . . .   | » 977    |
| Mean free path of primary cosmic rays in the atmosphere (L.), <i>R. W.</i><br><i>Williams</i> . . . . .  | » 762    |
| $N$ -component in extensive air showers (On the), <i>D. S. Narayan</i> and<br><i>G. B. Yodh</i> . . . . .  | » 1020   |
| Prong analysis of multiple production of pions at bevatron energy<br>according to a statistical theory, <i>F. Cerulus</i> and <i>J. von Behr</i> . . . . .   | » 1046   |
| Relative abundance of carbon, nitrogen and oxygen in the cosmic rays,<br><i>C. Q. Orsini</i> . . . . .   | » 1040   |
| Antwort auf die Bemerkungen von Z. Janković zu meiner Abhandlung:<br>« On the mechanical foundation of the theory of special relativity »<br>( <i>Nuovo Cimento</i> , <b>13</b> , 873 (1959)) (L.), <i>K. Stiegler</i> . . . . . | » 579    |
| Fluctuations of space-time metric (L.), <i>D. I. Blohinčev</i> . . . . .   | » 382    |
| Hamilton formalism in space-time (On the), <i>J. Kulhanek</i> . . . . .  | » 1092   |
| Quasi-static approximation in general relativity (On the), <i>R. P. Kerr</i> . . . . .   | » 26     |
| Relativistic observations and the clock problem, <i>J. Terrell</i> . . . . .   | » 457    |
| Remarks on the paper by K. Stiegler: « On the mechanical foundation<br>of the theory of special relativity » ( <i>Nuovo Cimento</i> , <b>13</b> , 873 (1959)) (L.),<br><i>Z. Janković</i> . . . . .                              | » 569    |
| Technique for eliminating the variation of mass with velocity in relativ-<br>istic problems, <i>S. Tyagaraja Rao</i> . . . . .   | » 274    |

## QUANTISTICA (MECCANICA)

|  |       |
|--|-------|
| Origin of super-selection rules (On the), <i>S. T. Epstein</i> . . . . . | » 362 |
|--|-------|

## RELATIVITÀ

|  |       |
|--|-------|
| Poincaré's epistemological sum (L.), <i>G. Rosen</i> . . . . . | » 966 |
|--|-------|

## SOLIDI E LIQUIDI - MOLECOLE

|   |       |
|---|-------|
| $^{196}\text{Au}^m$ isomeric state (On the) (L.), <i>M. Ademollo, M. Boccilini, G. Di</i><br><i>Caporiacco</i> and <i>M. Mandò</i> . . . . .            | » 378 |
| Calcolo semiempirico dei primi livelli di energia elettronica delle mole-<br>cole HFCO, <i>G. Giacometti, G. Rigatti</i> e <i>G. Semeraro</i> . . . . . | » 939 |
| Considerazioni sui limiti di applicabilità del metodo degli atomi nelle<br>molecole (L.), <i>E. Abate</i> . . . . .                                     | » 190 |

|   |          |
|---|----------|
| Dislocation relaxation in zinc single crystals (L.), <i>P. G. Bordoni, M. Nuovo</i><br>and <i>L. Verdini</i> . . . . .  | pag. 373 |
| Electronic spectrum of formyl fluoride (On the), <i>A. Foffani, I. Zanon,</i><br><i>G. Giacometti, U. Mazzucato, G. Favaro</i> and <i>G. Semerano</i> . . . . .   | » 861    |
| Hyperfine structure of E.S.R. signals in phenotiazine perchlorate (semi-<br>quinone) and phenotiazine perbromide (chinone) (L.), <i>G. Lanzi,</i><br><i>G. Siragusa</i> and <i>L. Zanotti</i> . . . . . | » 1155   |
| Influence de la chaleur sur la coloration des halos pleochroïques dans<br>la biotite, <i>S. Deutsch</i> . . . . .   | » 269    |
| New measurements of the spin-lattice relaxation time in liquid<br>helium 3 (L.), <i>G. Careri, I. Modena</i> and <i>F. Santini</i> . . . . .  | » 782    |
| Quantum effects on the radial distribution function of liquids, <i>F. P. Ricci</i> . . . . .  | » 532    |
| Superconducting state in the Bethe-Goldstone approximation, <i>A. Katz,</i><br><i>A. de-Shalit</i> and <i>I. Talmi</i> . . . . .  | » 485    |
| Supercurrent and energy gap (L.), <i>R. Suzuki</i> and <i>M. Akano</i> . . . . .  | » 570    |
| Theory of the liquid helium film (Some remarks on the) (L.), <i>S. Franchetti</i> . . . . .   | » 1158   |
| Vapour pressure of isotopic liquids - II: Ne and A above boiling-point<br><i>G. Boato, G. Casanova</i> and <i>M. E. Vallauri</i> . . . . .  | » 505    |

## INDICE DELLE RECENSIONI

|   |          |
|---|----------|
| <i>J. W. DUNGEY - Cosmic Electrodynamics</i> . . . . .  | pag. 206 |
| <i>Theorie und Molekulare Deutung Technologischer Eigenschaften von Hoch-</i><br><i>polymeren Werkstoffen</i> , ed. <i>H. A. STUART</i> . . . . .   | » 207    |
| <i>L. R. B. ELTON - Introductory Nuclear Theory</i> . . . . .   | » 396    |
| <i>H. GOLDSTEIN - Fundamental Aspects of Reactor Shielding</i> . . . . .  | » 396    |
| <i>J. M. JAUCH</i> and <i>F. ROHRlich - The Theory of Photons and Electrons</i> . . . . .   | » 397    |
| <i>D. CHENG - Analysis of Linear Systems</i> . . . . .  | » 398    |
| <i>U. FANO</i> and <i>L. FANO - Basic Physics of Atoms and Molecules</i> . . . . .  | » 398    |
| <i>Handbuch der Physik</i> , ed. <i>S. FLÜGGE</i> , vol. XLIV: <i>Nuclear Instrumentation - I</i><br><i>The Lloyd William Taylor Manual of Advanced Undergraduate Experiments</i><br><i>in Physics</i> , ed. <i>T. B. BROWN</i> . . . . . | » 399    |
| <i>J. E. HOOPER</i> and <i>M. SCHARFF - The Cosmic Radiation</i> . . . . .  | » 589    |
| <i>F. CAP - Physik und Technik der Atomreaktoren</i> . . . . .  | » 590    |
| <i>1958 Annual International Conference on High Energy Physics at CERN</i> ,<br>ed. <i>B. FERRETTI</i> . . . . .  | » 591    |
| <i>G. RAOULT - Les ondes centimetriques</i> . . . . .   | » 591    |
| <i>Bibliography of the Stable Isotopes of Oxygen (<sup>17</sup>O and <sup>18</sup>O)</i> , compilata da<br><i>D. SAMUEL</i> e <i>F. STECKEL</i> . . . . .   | » 784    |
| <i>J. S. R. CHISHOLM</i> and <i>A. H. DE BORDE - An Introduction to Statistical</i><br><i>Mechanics</i> . . . . .   | » 976    |
| <i>M. E. ROSE - Elementary Theory of Angular Momentum</i> . . . . .   | » 1160   |

---

Fine del Volume XVI, Serie X, 1960

---

PROPRIETÀ LETTERARIA RISERVATA

---

Direttore responsabile: G. POLVANI

Tipografia Compositori - Bologna.

Questo Fascicolo è stato licenziato dai torchi il 18-VII-1960



